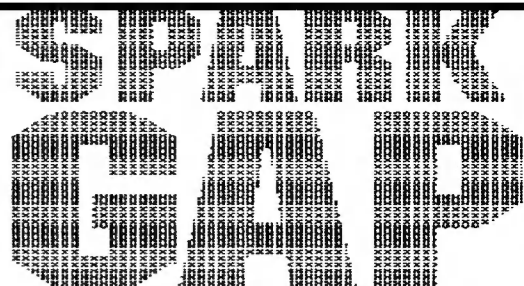


MIDSTATE AMATEUR RADIO CLUB

MARC



"Ham Radio News from Johnson County, Indiana"

APRIL 1993

UPGRADES: MARCH TESTING

Raphael Deese *	Indianapolis	NC Tech
Paul Harris KE9RK	Shelbyville	Extra
George Hobbs	Shelbyville	NC Tech
David Lipscomb	Heltonville	NC Tech
Charles Osborne *	Unionville	Novice

*denotes member of our Novice class.

NEW AWARD OFFERED

To spur interest in traffic handling the National Traffic System and the Field Service Department of ARRL has created a new "Message Origination Award."

To qualify for this award a traffic handler must show proof of originating at least four properly formatted NTS radiograms in a one month time frame. The documentation is to be forwarded by the applicant to the Section Manager or Section Traffic Manager (STM) who will issue the award.

NOVICE CLASS ENDS

The final novice class ended wednesday March 31 in the EOC. Some of the class members have taken all or parts of their tests. Some will complete either the Novice or codeless Tech licenses at the next local testing session on April 17th.

The support that was demonstrated by the many club members who attended the classes has been really appreciated. Their attendance and encouragement is a good motivation to the members of the class. It also indicates that a novice class is a good project for the club and should be continued!

CLUB TESTS NEW FREQUENCY

Late in March the club and Johnson County RACES began testing on 145.510 for a frequency for a packet mailbox. The test, conducted under the direction of the Indiana Coordinator WJ9U, is to determine if this frequency is practical for a non-forwarding mailbox and general club traffic.

While the target users of the system are Johnson County hams, the system is available to any amateur wishing to use it. This system will **not forward** messages! All traffic will remain local.

EXCHANGES ON REPEATER

The following exchanges are available for auto patch on our repeater:

222 228 230 231 232 233 235 236 237 238 239 240 241
242 243 244 247 248 251 252 253 254 255 256 257 259
261 262 263 264 265 266 267 269 271 273 274 276 277
278 283 290 291 293 297 298 299 321 322 328 342 349
351 352 353 355 356 357 359 422 424 425 431 432 439
441 442 443 445 461 464 465 466 469 470 471 481 486
488 526 535 541 542 543 545 546 547 549 556 597 630
631 632 633 634 635 636 637 638 639 681 684 685 686
687 691 694 729 736 738 780 781 782 783 784 786 787
788 831 856 870 871 872 875 876 879 881 882 885 887
888 889 895 897 898 899 920 921 923 924 925 926 927
928 929 933 952 958 959 976 988.

Cities covered are: Bargersville, Edinburgh, Franklin, Greenwood, Indianapolis, Marietta, Mooresville, Morgantown, Nashville, Nineveh, West Newton, and Whiteland.

If you are having any trouble in using the auto patch please contact either WB9YIG or NV9K. To the best of our knowledge all codes are working properly.

4/93

WEATHER NET TEST



WARNING: A tornado test can be confusing....Many police and fire dispatchers, local broadcasters as well as amateur radio operators in central Indiana were confused by the March 25th Tornado test.

Citing a change of format, the National Weather Service decided to create a more realistic test by issuing a tornado watch followed thirty minutes later by a tornado warning.

Eager county officials misread the test watch notice and set off warning sirens, school alarms and dispatched warnings on all police and fire frequencies. As a result local amateur radio operators activated the county weather nets. Jack Parker, NT9J, was mobile in northern Johnson county and brought up the weather net shortly after the county sheriff alerted his units. Fifteen ham radio operators checked in. There were five bases and ten mobiles. RACES coordinator Mike Holland AA9FP, also checked into the state EOC via packet radio.

One major problem surfaced during the drill. None of the Johnson county school's alert radios were activated! Bob Doles WB9AYB, and Bill Brinkmann KA9ZMU, were stationed at two different Franklin schools during the test. Their reports of the radio system failure were passed through the weather net to the sheriff's department. County officials tried three times to set the tone activated receivers off in the schools. County officials were investigating the cause of the system failure.

National weather service officials called the watch/warning drill a success even though there was some confusion.. Thanks to all the hams who checked into the net.

-NT9J

SCHOOL TOUR

Over a dozen MARC members and their families visited the Aerospace lab at Franklin High School March 23rd. Instructor Doug Craig showed the group the framework for the new space shuttle simulator that is currently under construction. Each semester

twenty of the high school students have the opportunity to participate in the special space science program.



At the end of each semester Craig and his students launch a pair of weather balloons with radios and other scientific equipment aboard as the payload. The students build the light weight payload packages. During the flight they run the communications tracking network with the assistance of local amateur radio operators.

Craig's innovative program has caught the attention of several leading engineering schools across the country. Following the ninety minute tour club members were invited to attend the next balloon launch scheduled for April 10th.

-NT9J

CPR CLASS

The first CPR class sponsored by the Mid-State Amateur Radio Club and Johnson County RACES was held saturday April 3rd. Nine people participated in the eight hour course at the Johnson county EOC. Instructor Anne Donahue from the county Red Cross chapter taught club members the techniques for giving life saving CPR, rescue breathing, and how to aid a choking victim.

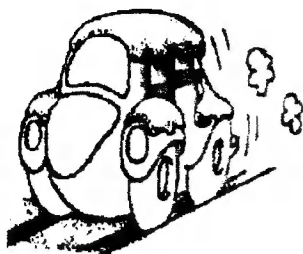
Each student had to pass a written test and demonstrate their ability to administer aid to an adult, child, and infant victim. RACES training officer Mike Holland AA9FP, said everyone passed with flying colors. The certification is good for one year.

This was the first step toward a RACES goal of training every member in CPR and first aid. If you have an interest in attending a future training session see Mike AA9FP.

-NT9J

DO YOU HAVE PACKET NEWS?

Brian WW9A of the Columbus BBS on 145.70 is looking for packet information for his newsletter. If you can help drop him a line on his BBS. He wants any news about packet happenings on 145.70.



SNOWBOUND IN THE MARCH BLIZZARD!

While the blizzard in early March swept up the east coast bringing everything to a virtual halt most Hoosiers were counting their blessings. The storm had missed us by a hundred miles. East coast hams could be heard on the low bands talking about the deep snow fall, high tides, and damaging winds.

About 9 PM Saturday March 13th Joe, KA9ZPA, received a call from Pat Vehorn at the Johnson County Red Cross. She reported that four Franklin teenagers, vacationing in Myrtle Beach, had left early to beat the storm and were now missing. They were last heard from near Ashville, N. Carolina.

Joe immediately fired up his Kenwood TS-850, turned the beams toward the Carolinas and searched the low bands for some kind of emergency net. "After a few minutes I found the W. Virginia snow emergency net on 80 meters taking health and welfare messages and gave them the names of the missing Franklin kids" Joe said.

For the next five hours Joe and his wife Karen, N9KMH, took turns monitoring the emergency net, waiting patiently for news about the lost college students. "Finally, about 4 AM the net called me. They had found the kids stuck on interstate 40 near the N. Carolina and Tennessee border" Vergara said. "They had been stranded about 12 hours, were out of food and almost out of gas. They were rescued by a National Guard Personnel Carrier and taken to a nearby shelter in Newport, Tennessee."

Joe immediately called the Red Cross who in turn called the anxious parents and notified them that their snow-bound travelers were safe! Congratulations to Joe and Karen for their extra effort on behalf of these snow-bound students and concerned parents!

-NT9J

BEN'S WEATHER TIPS

By Ben Woods Channel 8 TV

Dear weather watcher: Happy Spring! April is a transition month in central Indiana. By month's end the trees will be bursting forth in long-awaited green colors. March was colder and slightly drier than average. The monthly average temperature was 39.1 degrees (2.3 degrees colder than normal). Precipitation at the Indianapolis airport totaled 3.72 inches (just .07 inches drier than normal). After heavy snowfall in February, March quieted down with only 3.0 inches for the entire month.

The 30 day outlook for the month of April calls for below normal temperatures and slightly below to near average precipitation. We are now in the severe weather season! April is far and away the leading month in terms of tornado damage! Sixty seven percent of all tornado damage occurs in April (compared to June in second place with only 9 percent).

Your alertness can really pay off! Timely severe weather operators help us alert the public and help get prompt warnings issued by the National Weather Service. Thanks again for all of your help!

Ben Woods WISH TV Meteorologist.

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PACKET DX !

Joe, KA9ZPA, reports that DX Packet is now available through his station on 145.510. Connect to KA9ZPA-3 which will open a node to the W9QYQ DX packet station in Bedford. Type "C" to connect. Some of the stations seen recently were from Michigan, Illinois, California, Sweden, and Australia. Give it a try!

If you need help with this contact Joe...He can explain the whole process to you!

ARE YOU FRETTING ABOUT YOUR UPGRADE?



HOW LONG FOR THE FIRST LICENSE?

The FCC's current license processing time is at 90 days. In addition, there will be extra time required within the volunteer examiner system of two weeks or so allowing your VE Team and VEC (if for Technician class or higher) time to process your application. So your license might take up to 12 weeks to arrive.

To shorten this amount of time as much as possible all ARRL VE teams have been provided with EXPRESS OVERNIGHT mailers to return applications more quickly. The ARRL has also begun sending their daily packages to the FCC Licensing Facility via EXPRESS OVERNIGHT service!

WHAT SHOULD I TAKE TO EXAMINATION SESSION? You will need your original current FCC-issued license (and a copy of it) if you are licensed. Also any original written or code element credit documents (CSCES) which are currently valid. If you are not known at the test site you will need a photo ID. (Drivers license is acceptable). You may also bring a calculator, a pen and two pencils, and the test fee (currently \$ 5.60).

CAN I CLAIM GRANDFATHER CREDIT?

If you hold a Technician class license which was issued prior to 3/21/87, you are not required to take the Element 3B (General class written) examination if you can provide a copy of your FCC-license dated before that date.

If your license has since been renewed, and you don't have a copy of the pre-3/21/87 license, you must seek a verification letter from the FCC. To do so, write to FCC, 1270 Fairfield Rd., Gettysburg, Pa. 17325-7245 and request a Form

1010-B. When that form arrives, bring it with you to the test session for proof of grandfathering credit.

WHAT IF I HAVE LOST MY LICENSE?

VEC's are not permitted to submit any upgrades to the FCC without a copy of your current license attached to the 610 form! If you have lost your license you must write the FCC (at the above address) and request a Form 1010-B. You should also request a verification letter at the same time since the replacement license usually take about 10 weeks to arrive!

The verification letter is a legally binding license document which you can use until your replacement license arrives. You will also need a copy of the verification letter to be submitted with your 610 form from the test site!

Hopefully, this information will be useful to you in planning for your upgrade! Good luck!

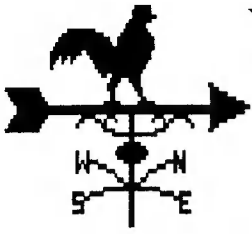
Club meeting April 17th followed by VE testing session. See you there!



THE HORSE ASSOCIATION

It's almost time to head 'em up and move 'em out again! The Indiana Combined Training Association again is requesting communications assistance for their annual horse training event June 5th at the course in Camp Atterbury.

The cross-country event is scheduled to begin around 9 AM. We'll need about two dozen amateur radio operators to provide communications for officials on the jump course. Hams may bring their families to this day-long event. So mark your calendars and reserve the date! More details will be discussed at our monthly club meetings and on the sunday night net.



WEATHER FACTS

Tornadoes are swift and savage storms made up of winds rotating at very high speeds, usually in a counter-clockwise direction (Northern Hemisphere) around a central point. These storms normally do not last very long and are usually visible as a vortex or funnel hanging down from the base of a cumulonimbus cloud. Occasionally a tornado is not visible until it is on the ground and the funnel and the air surrounding it have become filled with dirt and debris.

For many years it was thought that all tornadoes were made up of a single vortex or funnel. However, as the years passed, evidence continued to mount that suggested that some tornadoes are made up of two or more suction vortices (tornado with-in a tornado) rotating around a central point. This concept was advanced by several researchers and finally during the great tornado outbreak of April 3, 1974, a tornado was filmed near Indianapolis, Indiana, which contained in the vortex, at least four suction vortices, all rotating around a central point. The tornado was made up of four smaller tornadoes or suction vortices.

Researchers dealing with tornadic storms have determined there are at least three cyclonic features present in some of them. First is the tornado cyclone which may be quite large (3 to 5 miles) and represents the large scale wind flow around and into the tornadic thunderstorm cell. Second is the actual tornado which is produced by the tornado cyclone. The tornado may consist of only one funnel or vortex, or, in some cases, it may consist of several funnels which are called suction vortices. The suction vortices represent the third cyclonic feature present in some tornadic storms.

Most tornadoes occur in association with severe thunderstorms and most likely form in the cloud several thousand feet above the earth's surface. It now appears that the cyclonic spinning motion of the

tornado extends from the bottom of the funnel all the way to the top of the thunderstorm.

Severe thunderstorms and associated tornadoes occur in many different types of weather conditions. The most favorable conditions, however, include very warm, moist and unstable air flowing up from the Gulf of Mexico along with a dry push of air from the west, a cool front moving in from the north, and a southwest to northwest flowing jet stream in the upper atmosphere. These ingredients can combine to produce a few tornadoes or a major outbreak which can spread death and destruction over wide areas.

Often, only one tornado may accompany a severe thunderstorm, but, on occasion, two or more tornadoes may be associated with the same parent thunderstorm. In other words, as the thunderstorm moves along, a tornado may form, last for a while and then dissipate or go back up into the cloud. Then at some point further along, another tornado will drop down from the same thunderstorm and go through the same process. This sequence of events can occur several times. This is known as a family of tornadoes.

Speculation as to the actual wind speeds with tornadoes has been wide and varied through the years. However, in recent years, analysis of still photographs and movie films of tornadoes has led to strong indications that tornado wind speeds most likely do not go much above 300 MPH. In general, it is likely that most tornado winds are generally in the range of 100 to 200 MPH.

The forward speed of a tornado ranges from very slow to 70 MPH, with an average forward speed of approximately 40 MPH. Normally, tornado paths are fairly short and tornado widths fairly narrow. Estimates vary, but a reasonable approximation would put the average tornado path length in the USA near 5 miles long and the average tornado width near 200 yards.

Tornadoes destroy mostly by virtue of their strong winds and to a lesser degree by rapid pressure reduction. As a tornado approaches close enough to be damaging, all of a sudden the powerful winds cause breakup and disintegration of windows, doors,

and walls, with the broken pieces knifing through the air in a deadly barrage up to 300 MPH. Utility poles are snapped off and thrown like giant javelins; trees are stripped of their limbs; cars and trucks are mangled and catapulted as far as a mile from where they originally were, and in a moment it's over with; a living nightmare to those who experience it and survive.

During the past 30 years, the tornado death toll has averaged about 128 per year. In 1925 746 persons were killed in one storm.(Missouri, Illinois, Indiana).

Tornado Alley used to be North Central Texas, through Oklahoma, into Eastern Kansas, but it now dubiously includes Iowa, Illinois, Indiana, Ohio, and Kentucky. The highest tornado frequency has moved into these areas with occurrence of tornadoes dropping below normal in Texas, Oklahoma, and Kansas.

During the period 1956-1975, an average of 730 tornadoes per year occurred in the USA, about half of them during the months of April, May, and June. The year 1973 set a record of 1108 tornadoes. When looking at the tornado statistics for the past 50 years, it appears that there has been a dramatic increase in the number of tornadoes.

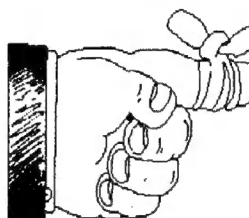
Tornadoes may occur at any hour of the day or night, but because of the meteorological combinations which create them, they form most readily during the warmest hours of the day. 82 percent of all tornadoes (nationally) occur between noon and midnight, with the greatest single concentration (23%) occurring between 4 and 6 pm.

SEVERE WEATHER WATCHES: Severe weather watches are issued to alert persons to the **POSSIBILITY** of severe weather development in a specified area for a specified time. Until a severe weather warning is issued, persons in the watch area should not interrupt their normal routines except to watch for threatening weather.

At this point the Mid-State ARC ARES Weather net should be activated! All members are requested to go into a standby mode, anticipating the activation of a weather net.

SEVERE WEATHER WARNINGS: Severe weather warnings are issued when severe weather is **INDICATED ON RADAR, DEFINITELY MOVING IN, OR BEING EXPERIENCED**. Severe weather warnings indicate the location of the severe weather condition, the area through which it is expected to move, and the time period which it will move through the area warned. When a severe weather warning is issued, persons in the warning area should take immediate safety precautions.

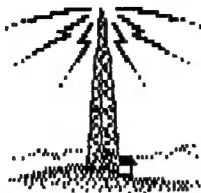
If storm damage occurs, the Johnson County Emergency Management Director might activate a **RACES NET**. In this event, check in and wait for instructions.



TORNADO SAFETY TIPS FOR WEATHER NETS

1. If you are at home avoid west and south walls.
2. Avoid halls open to the south or west.
3. If there is no basement seek shelter in the center of the lowest floor. Protect face and eyes.
4. Don't remain in a mobile home! Go to a steel reinforced building or drop to the ground in a low place, protecting face and eyes.
5. Don't seek shelter in a car or truck during a tornado! If you are already in a car move at right angles to the tornado path or get out of the car and lie in a low place on the ground.
6. Absolutely avoid buildings with large free-span roofs such as auditoriums, gymnasiums, supermarkets, etc.
7. If you are participating in a weather net do not place yourself or your family in jeopardy by ignoring the above safety tips! Pay close attention to the activity on the net to know if you are in an area that could pose a problem for your safety!

RF RADIO MONSTER



Radiators, Toilets And Toasters Broadcast News To Seaside Town

HULL, Mass. -- Anne Scully picks up her telephone and hears Diana Ross singing "Stop! In the name of love." News and talk shows resound from her bedroom radiator. All over this seaside town 25 miles south of Boston residents are hearing voices. From the radiators. From the plumbing. From ovens and toasters and aluminum siding. It's all courtesy of a pair of high-powered radio transmitting towers down the street.



"It's a pain in the neck to listen to voices that are not of your choosing. I call it an invasion of privacy," 69-year-old Mrs. Scully said Saturday. "I hear talk shows all night long. I'd like to at least have some say in what I listen to." "It's obnoxious to have to lie in bed and listen to those stupid women who can't sleep nights calling in to the talk shows," she added.

Much of the town is closed up for the winter. The Penny Arcade is frosted with snow. But the radio racket blares like the summertime din on the crowded beach. Police Patrolman John Buchler said sometimes the radio programs come in so loud on the police band at the station that he can't hear the television. "It's all over town," he said with a shrug.

"It comes through my pipes downstairs when I'm washing clothes," said Frances Gentilucci, 31, a neighbor of Mrs. Scully. Her 8-year-old daughter, Jennifer, plugged in an empty tape recorder and out came the voice of a disc jockey reminiscing about golden oldies.

The pair of 520-foot transmitting towers for 50,000-watt radio station WBZ in Boston have stood in Hull for years, interfering with phone calls and scrambling television reception. Mrs. Scully more or less lived with the unwanted talkback from her radiator when she moved into her house four years ago. But a fire at the base of one of the antennas in early November seemed to worsen the problem and spread it over more of the town.

At first complaints went to New England Telephone because interference most commonly comes over the phone. "In the past month we've gotten hundreds of calls about problems with telephones," said Carolyn McKeown, a telephone company spokeswoman. "When repairmen get out there they find that the problems extend to all sorts of other appliances. It's crazy."

Eddie de la Fuente, a WBZ technician working at the transmitter site, said it could be some time before repairs reduce the newly intensified interference. The fire in an equipment shack threw one of the two antennas off the air, he said. The two antennas usually work in tandem to direct the 50,000-watt signal over land to 38 states. But with one out of action, the lone antenna sends a signal in a wider sweep over Hull, intensifying the interference, he said.

While a subcontractor was working to repair the equipment Saturday, further adjustments might be needed, de la Fuente said. "It could take a couple of months or more." When the station was installed half a century ago, the few people in Hull were glad. On a wall inside the transmitter station is a bronze plaque that says: "The Town of Hull this day welcomes the 50,000 watts of Westinghouse radio station WBZ." It's dated July 27, 1940. The interference problem was probably less noticable back then, de la Fuente said. "It's just that people didn't have cordless telephones and answering machines in 1940."

IT'S GOING TO BE A BAD DAY WHEN:

You call Suicide Prevention and they put you on hold!

Your Income Tax refund check bounces!

It costs more to fill up your car than it did to buy it!

FAMOUS BUMPER STICKERS:

I still miss my ex-husband but my aim is getting better!

Be careful....I drive the same way you do!

CHURCH BULLETIN TYPOS:

The ladies of the church have cast-off clothing of every kind and they may be seen in the church basement on friday.

For those of you who have children and don't know it, we have a nursery downstairs.

Potluck supper: prayer and medication to follow.



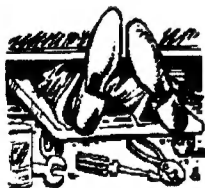
The following is a para-phrased list of Hamfest shopping tips offered by WB8IMY in the March 93 QST:

Avoid older FM transceivers that require crystals. You can spend as much as \$10 for each frequency.

When considering an older HF transceiver avoid those that use a large number of vacuum tubes. Tubes are becoming scarce.

Before buying any transceiver find out if the manufacturer is still in business and if it still provides parts and service.

Inspect the rig thoroughly. If it is battery-powered ask to see it operate.



Ask the seller if you can look inside the rig. Be suspicious if he refuses! Look for burnt components, cracked or cooked circuit boards and melted wires. Ask if the power supply is included.

Ask if the operating manual is included. These can sometimes be difficult to acquire.

Arrive early. The best bargains are snapped up in a hurry.

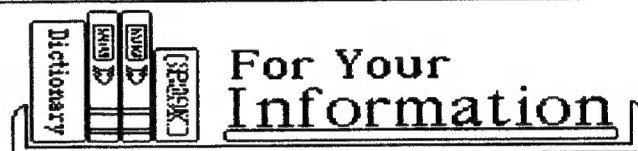
All used equipment prices are negotiable. Offer something less. If he says "no," come back in a few hours and ask again. If he really wants to sell it he will drop his price.

Be prepared to pay cash. Most don't want to accept a check from someone they don't know.

And last, LET THE BUYER BEWARE! If you have problems with your purchase after you get home it's your responsibility!



FINALLY, on your way home start thinking about how you are going to explain your purchases to your wife!



Congratulations: Bill Brinkman is now our RACES officer. He has the packet BBS station up and running at the EOC. It can be accessed three ways: Connect to KA9ZMU-3 or EOCMBX or JOCO. He has made a node available to the Bedford HF DX BBS. Check with Bill for details.

Congratulations: Dave Wendt is our new ARES EC. He will probably be filling us in on his plans in the near future!

<div style="text-align: center; border: 1px solid black; padding: 5px;"> <h1 style="margin: 0;">MARC</h1> </div>	
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Treasurer: Mac McCarty NV9K	Weather Column: Ben Woods Chan 8
Editor: Mac McCarty NV9K	Pkt. Column: Jeff Stoman N1EWO